Artikel Penelitian

Suicidal Ideation as a Risk Factor of Suicide in Asian Countries: A Systematic Review and Meta-Analysis of Case-Control Studies

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Abstract

Introduction: *Suicide has become the third leading cause of death among individuals in their productive years, underscoring the pressing requirement for effective preventive measures and risk assessment strategies. Earlier studies have indicated that suicidal ideation may play a role as a risk factor of completing suicide. To bolster this understanding, we conducted a systematic review and meta-analysis focusing on the relationship between suicidal ideation and completed suicide within Asian populations.*

Methods: *This review adopted a systematic approach, adhering to the four-phased PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow diagram and checklist. Case-control studies were selected, focusing on samples of individuals aged 15-44 years who had received psychiatric care. Exclusion criteria included language barriers, incomplete or inaccessible texts, publications older than 2000, and participants with co-existing medical conditions that could interfere with the results. To assess the quality and potential bias of the included studies, the Oxford's Critical Appraisal Skills Programme (CASP) Case-Control Checklist and critical appraisal worksheet were utilized.*

Result: *The search process yielded a total of 641 records, from which six studies were finally included in the meta-analysis. We found a statistically significant association between suicidal ideation and suicide (aOR 4.20; 95%CI 3.00-5.88, p<0.00001) with low heterogenity among the studies. The most common bias identified was related to the acceptability of case recruitment.*

Conclusion: *Suicidal ideation can act as a predictor of suicide risk in Asian populations. Incorporating the assessment of suicidal ideation in suicide prevention initiatives is critical for promptly identifying and intervening with individuals at risk.*

Keywords*: Suicidal ideation, Suicide, High risk, Asia*

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Ide Bunuh Diri sebagai Faktor Risiko Bunuh Diri di Asia: Telaah Sistematis dan Meta-analisis dari Studi Kasus-Kontrol

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Abstrak

Pendahuluan: *Bunuh diri merupakan penyebab kematian ketiga terbanyak di kalangan individu usia produktif sehingga diperlukan upaya pencegahan dan penilaian risiko yang efektif. Beberapa studi telah menunjukkan peran idea bunuh terhadap kejadian bunuh diri. Untuk memperkuat temuan tersebut, telaah sistematis dan meta-analisis ini disusun untuk menilai asosiasi antara ide bunuh diri dan kejadian bunuh diri pada populasi Asia.*
Metode: *Telaah sistematis ini menggunakan alur diagram dan daftar periksa empat fase PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses). Telaah ini mengikutsertakan studi kasus kontrol dengan fokus pada individu berusia 15-44 tahun yang menerima perawatan psikiatri. Kriteria eksklusi meliputi keterbatasan bahasa, teks yang tidak lengkap atau tidak dapat diakses, publikasi sebelum tahun 2000, dan partisipan dengan riwayat kondisi medis yang dapat mempengaruhi hasil. Untuk menilai kualitas dan potensi bias dari studi yang dimasukkan, digunakan Oxford's Critical Appraisal Skills Programme (CASP) Case-Control Checklist dan lembar telaah kritis Oxford.*
Hasil: *Proses pencarian menghasilkan total 641 penelitian, namun hanya enam studi yang akhirnya dimasukkan dalam meta-analisis. Studi menemukan adanya asosiasi yang bermakna secara statistik antara ide bunuh diri dan kejadian bunuh diri (aOR 4.20; IK95% 3.00-5.88, p<0.00001) dengan heterogenitas yang rendah antar-studi. Bias yang paling sering ditemukan melalui CASP adalah penerimaan rekrutmen kelompok kasus.*
Kesimpulan: *Ide bunuh diri dapat menjadi prediktor risiko bunuh diri pada populasi Asia. Penyertaan penilaian idea bunuh diri berperan penting dalam upaya pencegahan bunuh diri guna mengidentifikasi dan melakukan intervensi secara tepat waktu pada individu yang berisiko.*

Kata kunci*: Ide bunuh diri, Bunuh diri, Risiko tinggi, Asia*

Introduction

Suicide is the most prevalent psychiatric emergency. According to the World Health Organization (WHO), suicide claims a life every 40 seconds. The suicide rate has increased by 60% in the last 45 years, making a concerted effort towards tackling the problem more important than ever before.[1,2] Among individuals aged 15-44 years, it stands as the third most significant cause of death. This age range represents the most productive age of a person's life, causing a negative impact on society.[3]

The global average for suicide has reached up to 10.6 per 100,000 population. A study in the United States have shown that one suicide results in the loss of around 1.3 million USD, with 97% accounting for the loss of productivity.[4] Moreover, a study in Canada describes that in 2014, the number Potential Years of Life Lost (PYLL) per 100,000 population was approximately 360 years.[5] However, WHO data shows that Asia is a prominent region affected by this problem, contributing to almost two-thirds of the total amount of cases, both in high-income contries (such as Japan and Korea) or middle-to-lower-income countries (such as India and Pakistan) income countries.[6,7] Unfortunately, few studies have been conducted in this region, although several studies have suggested differences in suicidal tendencies properties between Asian and Western population, resulting in diffi-

culty in formulating accurate and integrated interventions, covering both preventive and curative measures.[8] Indonesia, as one of the Asian region countries, continues to have a problem in suicide rates. In 2018, the country was ranked 65 in suicide rates with 2.9 suicides per 100,000 people.[6] These data suggest the severe implications caused by the current suicide rate on society and underscore the importance of reducing these numbers.

Suicide itself is classified as major psychiatric emergency, as it may result in the loss of life if immediate treatment is not provided. Hence, when a suicide risk (whether implicit or explicit) is identified, securing the patient's safety and carrying out a suicide risk assessment are imperative.[9] Prevention through proper identification of individuals at risk of suicide remains the preferred and most essential way to tackle completion of suicide.[10] Recent studies show suicidal ideation as an emerging potential suicide indicator, encompasses a range of ideas indicating a belief that life lacks value, varying in intensity from passing notions to elaborate, thoroughly contemplated strategies for self-harm, or an all-consuming fixation on self-destruction.[11]

A study by Bridge JA, et al.[12] shows outstanding result, indicating that screening within a high-risk group consisting of inpatients, outpatients, or discharged psychiatric care patients, managed to decrease suicide attempts by 30% within one-year period. Unfortunately, only 8-25% of emergency department physicians screen high-risk patients for suicidal ideation, as it is may be unrecognized or underestimated.[11,12] This supports the conjecture even further that current suicide rates might have resulted from the lack of suicidal ideation assessment in the high-risk group.

This systematic review is conducted to provide stronger and more robust evidence regarding the relationship between suicidal ideation and suicidal behavior, especially within the Asian population. With a pressing need for a new effect estimation tailored to the Asian population, the results may prompt a re-evaluation of existing practical evidence-based screening guidelines for high-risk individuals in psychiatric emergency settings.[9]

Methods

To ensure reporting quality, this systematic review and meta-analysis followed the flow diagram and checklist provided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statements. The flow diagram consists of four phases, and the checklist encompasses 27 items related to the content and cover various sections, such as the title, abstract, introduction, methods, results, discussion, and funding.

Study Search

Multiple databases, including Pubmed, Cochrane, Science Direct, BMJ, and PLoS were explored using several search strategies up to 08 January 2023. The search strategy involved employing a set of keywords formulated based on the specific search terms and requirements of each database (see Table 1). Only fully published studies were included in the search. Additional records were found through manual searching and by reviewing the bibliographies of other studies that were not detected by electronic searches.

Table 1. Summary of Search Terms

Databases	Keywords
PubMed, Science Direct	((((suicidal ideation[MeSH Terms]) AND (risk OR factor OR association OR relationship OR correlation OR link OR relation)) AND (suicide OR suicide attempt)) AND asian
Cochrane	((((suicidal ideation) AND (risk OR factor OR association OR relationship OR correlation OR link OR relation)) AND (suicide OR suicide attempt)) AND asian
BMJ	Suicidal ideation (all words) in title and abstract AND suicide (all words) AND asian (all words)
PLOS	((((everything:"suicidal ideation") AND everything:suicide) AND everything:asian) AND everything:association)

Study Selection

The process of study selection followed four-phased PRISMA Statements' flow diagram, which includes identification, screening, eligibility test, and inclusion of studies. Following the screening process, all the remaining studies undewent a comprehensive evaluation of their full-text eligibility, considering the predetermined inclusion and exclusion criteria that were discussed and approved by all four reviewers.

The inclusion criteria are case-control studies that measure the relationship strength between past suicidal idea and suicide; high-risk participants who have received psychiatric care, including inpatient, outpatient, or discharged individuals; the usage of legitimate documentation of suicidal ideation and suicide, such as hospital or national mortality records, and studies conducted in Asian populations. Additionally, the exclusion criteria for this study are as follows: language other than Bahasa Indonesia and English, incomplete or inaccessible text, publication year older than 2000, and participants with possibly-interfering medical illnesses that cause prolonged and refractory pain or limit patients' ability to move such as brain neoplasm, neurodegenerative diseases, HIV infection, epilepsy, etc.[13]

Data Extraction

Data extraction was carried out by one reviewer using a standardized format for all studies. Subsequently, the extracted data independently checked and confirmed by two other reviewers. During the previous study selection process, duplicates had already been eliminated, ensuring that no identical data was redundantly extracted.

Quality and Bias Assessment

Quality and bias assessments were conducted following the completion of data extraction. To evaluate the quality and bias of each study, the Oxford's Critical Appraisal Skills Programme (CASP) Case Control Checklist was chosen. This checklist consists of 8 yes-can't tell-no questions related to three broad components: validity, results, and the application or significance of the studies. It also includes italicized prompts to clarify the importance of each question.[14] Two reviewers were responsible for this task, and it was subsequently reviewed by a third reviewer. For the bias assessment in this review, the Oxford's critical appraisal worksheet for systematic review was used that contains five questions about focus, comprehensiveness, eligibility criteria, assessment of included studies, and homogeneity of the review to be answered as yes, no or unclear.[15]

Analysis

In the included studies, numerous other risk factors are discussed regarding their association with suicide behavior in later years, such as race and ethnicity, work-related stress, family involvement, employment, living conditions. However, only suicidal ideation is taken into account. In addition to the inclusion and exclusion criteria, the meta-analysis only includes studies that examine the presence of suicidal thoughts as a distinct risk factor for suicide. The combined sample sizes of the control, exposed, positive, and negative outcome groups, along with the odds ratio (OR), were compiled and analyzed using Review Manager 5.3 Software for Mac, resulting in a forest plot.I^2 statistic was utilized to assess heterogeneity between studies. To evaluate publication bias and estimate the effect based on the size or precision of each study, this meta-analysis employed funnel plots.

Results

Initially, searches identified a total of 571 records from databases, as summarized in Figure 1. A total of 641 records were initially retrieved from various sources. After removing duplicates (n=8) and excluding irrelevant records (n=609), 24 studies were assessed for eligibility. Finally, only eight studies were included in the qualitative synthesis due to various reasons such as inaccessible full-text, incompatible study design, and data that did not correspond with the topic.

Table 2 presents the attributes of 8 studies, comprising a total of 1,321 individuals included in this review. All studies employed a case-control study design, either matched or not matched.[8,16-22] The summary of risk of bias and quality assessment results for each study is depicted in Table 3. The overall result suggests that all studies have a minimum 6 out of 9 "yes" record and 50% of included studies have 9 out of 9 "yes" records, indicating a low risk of bias and high validity. The most prevalent bias from each study is related to Question 3 concerning the acceptability of case recruitment. Two studies, conducted by Funahashi T, et al.[17] and Khanra S, et al.[19] showed an absence of an established reliable system for cases recruitment, sample number, and power calculation. However, both studies still provided precisely defined cases groups. In comparison, Funahashi T, et al.[17] included a larger number of cases compared to Khanra S, et al. who only included 10 cases. Additionally, Khanra S, et al.[19] did not provide sample number calculation and lacked a strong underlying basis for such a small sample population. As a result, Khanra S, et al.[19] received a "no" record, while Funahashi T, et al.[17] re-

ceived a "can't tell" record for aspect of the assessment.

Further exclusion were performed before meta-analysis to two studies which were study by Funahashi T, et al.[17] and Kan CK, et al.[18] Funahashi T, et al[17] did not specify the number of positive and negative outcome group, therefore impossible to calculate the effect size. Meanwhile, Kan CK, et al[18] was excluded because suicidal ideation was not measured as an independent factor to suicide but combined with attempted deliberate self-harm. In the studies included in the meta-analysis, the definition of suicidal ideation were all identically measured by documented medical records by physician. Meanwhile, the definition of suicide ranged from coroner's verdict, clinical definition, coroner's court data, and national mortality database. Despite the variation, all of these sources are official and legitimate in nature.

Figure 2 portrays the forest plot for the association between suicidal ideation on high-risk patients and suicide completion. Patients with suicidal ideation had a 4.2 times higher risk of completing suicide compared to patients without suicidal ideation (aOR 4.20, 95%CI 3.00-5.88, p<0.00001), with low heterogeneity observed among the studies (I2=0%; Q/df=0.88, p=0.49). Additionally, the assessment of funnel plot for the included studies (Figure 3) exhibited a symmetrical appearance, indicating homogeneity within this review and suggesting a relatively low publication bias.

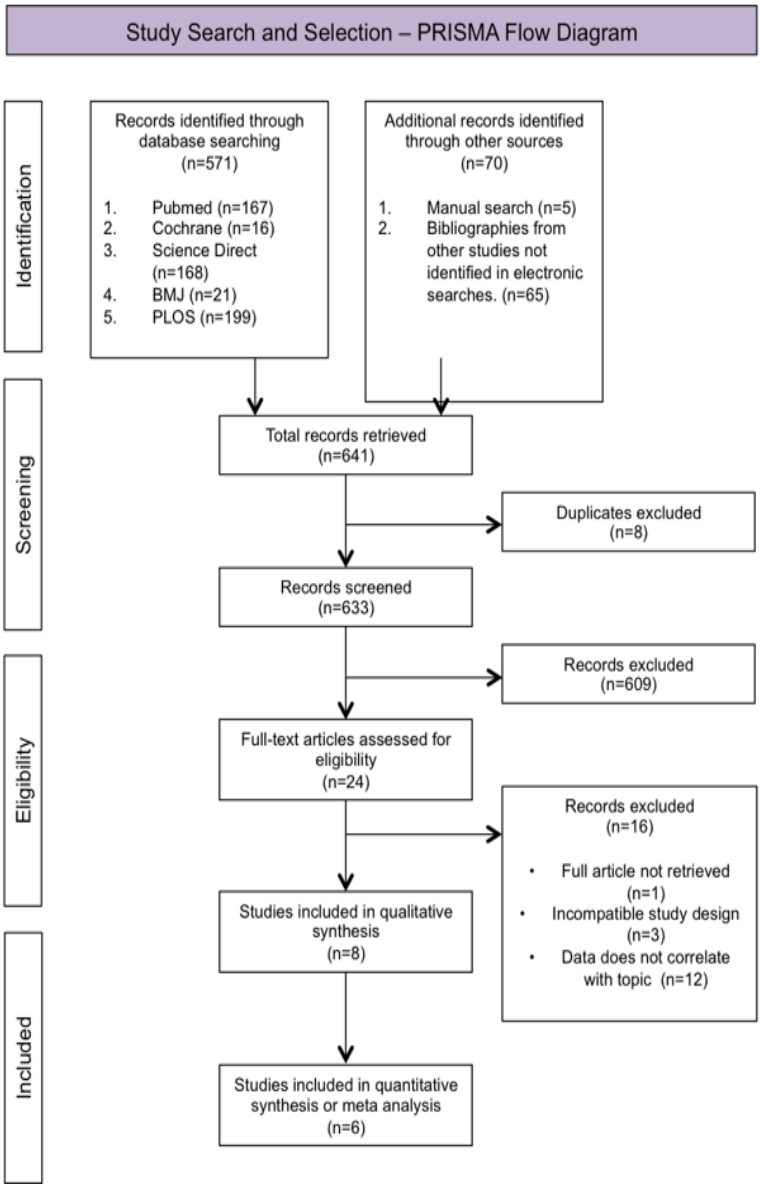

Figure 1. Study Search and Selection Process

Table 2. Selected Studies Investigating Suicidal Ideation as a Risk Factor of Suicide (N=8)*

Author (Publication Year)	Study Design	Study Location	Study Population	Mean Age on suicide Group (years)	Measures of Suicide	Adjusted Risk Factors
Funahashi T, et al. (2001)[17]	Case-control	Japan	80 people with schizophrenia and 80 matched controls	36.2±12.1	Clinically defined	Birth order, Course of illness, Auditory hallucination demanding suicide, Actual anxiety (fears of mental disintegration), and Life events in the last year.
Yim PH, et al. (2004) [8]	Case-control	Hong Kong	73 recently discharged mental health in-patients and 73 matched controls	Male 37.4, female 39.1	National mortality database	Sociodemograhic factors, Living with family, Criminal record, Historical clinical factors, Clinical factors in last admission, Clinical factors before death, Medication adjustment
Dong JYS, et al. (2005)[16]	Case-control	Hong Kong	92 in-patient suicides and 92 matched control	41.4	Coroner's verdicts of suicides and undetermined deaths	Psychosocial characteristics at index admission, treatment variables
Kan CK, et al. (2007)[18]	Case-control	Hong Kong	97 recently discharged mental health in-patients and 97 matched controls	41.5	Coroner's court data	Psychosocial difficulties, family involvement on discharge, work-related stress at follow-up, living alone, previous dsh (deliberate self-harm), admitted for dsh/suicidal idea, duration of illness <1 year, history of violence/criminal record, history of substance/alcohol abuse, depressive symptoms on discharge, deteriorating/fluctuating mental state on discharge, on benzodiazepine/hypnotic at follow-up, medical social worker/community psychiatric service on discharge, out of contact at follow-up, compulsory admission, discharge against medical advice/discharged after abscond, on antidepressant at follow-up, and decreased antipsychotic/antidepressant at follow-up.
Li J, et al. (2008)[20]	Case-control	China	64 in-patients with schizophrenia and 64 matched controls	34.6	Clinically defined	Number of hospitalizations, Suicide attempts during the hospitalization, Suicide attempts 1-month before hospitalization, Duration of illness ≥ 5 years, Symptoms, Hallucination, Persecutory ideas, Conceptual disorganization, Abnormal thinking contents, Anxiety, Guilty thought, Depressed mood, Suicidal ideation during the hospitalization, Suicide attempts during the hospitalization, Suicidal ideation 1-month before the hospitalization, Suicide attempts 1-month before the hospitalization, Family history of psychiatric disorders in first-degree relatives, and Family history of committed suicide in first-degree relatives.
Thong JY, et al. (2008)[22]	Case-control	Singapore	123 mental health patients and 123 matched controls	43	National mortality database	Psychiatric comorbidity, Past history of suicide attempts using highly lethal means, Past history of suicide attempts using non-lethal means/DSH, Stressors past 6 months (including physical illnesses, financial difficulty/debts, relationship problems, and bereavement), Psychotic symptoms past 3 months (including suicide-commanding auditory hallucinations and delusions), Voicing of suicidal ideation, and Family history of suicide.

Table 2. Selected Studies Investigating Suicidal Ideation as a Risk Factor of Suicide (N=8)*

Author (Publication Year)	Study Design	Study Location	Study Population	Mean Age on suicide Group (years)	Measures of Suicide	Adjusted Risk Factors
Lin SK, et al. (2014)[21]	Case-control	Taiwan	41 current mental health in-patients and 162 controls	33.5	National mortality database	Depressed mood, Psychomotor retardation, Loss of energy, Other psychotic symptoms, and Immediate family history with major psychotic disorder.
Khanra S, et al. (2016)[19]	Case-control	India	10 current mental health in-patients and 50 matched controls	25.5±7.40	Clinically defined	Sex, diagnoses, age

** All studies measured suicidal ideation as documented in medical records by physician.*
***Multivariate analysis; all p<0.05.*

Table 3. Critical Appraisal of Selected Case-Control Studies*

	Clearly focused issue	Appropriate method usage	Acceptable cases recruitment	Acceptable controls selection	Accurate exposure measurement for bias minimization	Equal groups treatment (aside from the experimental intervention)	Potential confounding factors consideration	Application to local population possibility	Accordanceof the result ofthis study with other available evidence	Study Quality
Dong JYS, et al. 2005[16]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Good
Funahashi T, et al. 2001[17]	Yes	Yes	Can not tell	Yes	Yes	Yes	Yes	Can not tell	Yes	Good
Kan CK, et al. 2007[18]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Good
Khanra S, et al. 2016[19]	Yes	Yes	No	Yes	Yes	Yes	No	Yes	Yes	Good
Li J, et al. 2008[20]	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Good
Lin SK, et al. 2014[21]	Yes.	Yes.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Good
Thong JY, et al. 2008[22]	Yes	Yes	Yes	Can not tell	No	Yes	Yes	Yes	Yes	Good
Yim PH, et al. 2004[8]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Good

** Using Oxford's Critical Appraisal Skills Programme*

Bias assessment in this review used Oxford's critical appraisal worksheet for systematic reviews. Potential bias could arise from not searching unpublished literature, excluding relevant studies. To address this, efforts were made: searching five major databases, checking reference lists, and searching in Bahasa Indonesia, broadening inclusion. Both MESH terms and text words bolstered search comprehensiveness. Another potential bias relates to recall bias in case-control studies. Efforts to mitigate include clear group definitions and rigorous participant selection.

Discussion

This review has revealed that suicidal ideation is a strong predictor of suicidal deaths. High-risk individuals, including those with a history of psychiatric care and suicidal ideation, are 4.20 times more likely to commit suicide compared to those without suicidal ideation (OR 4.20, 95%CI 3.00-5.88, p<0,00001). The highest Odds Ratio came from Thong JY, et al.[22] (OR=7.99) and the lowest OR of 1,88 came from Kan CK, et al.[18] Besides that, 50% of included studies shows

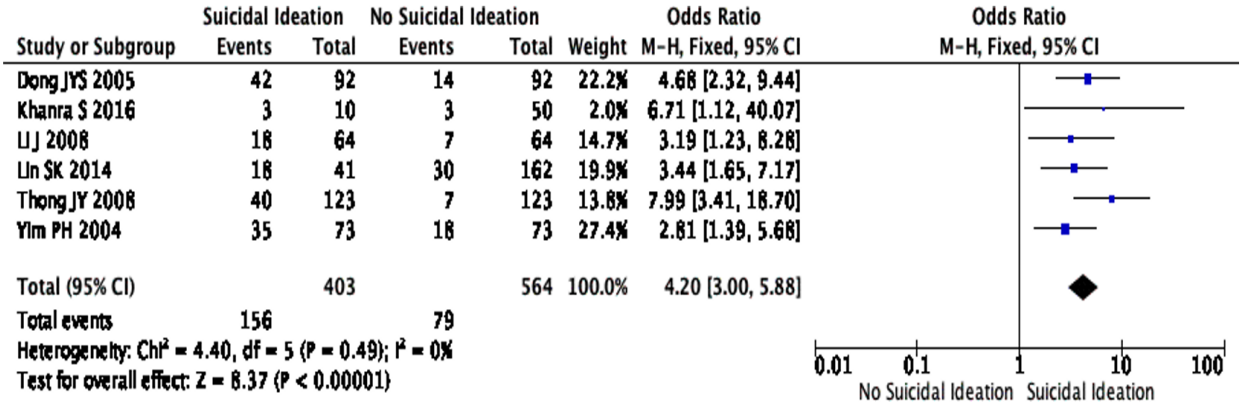

Figure 2. Forest Plot Analysis of Included Studies

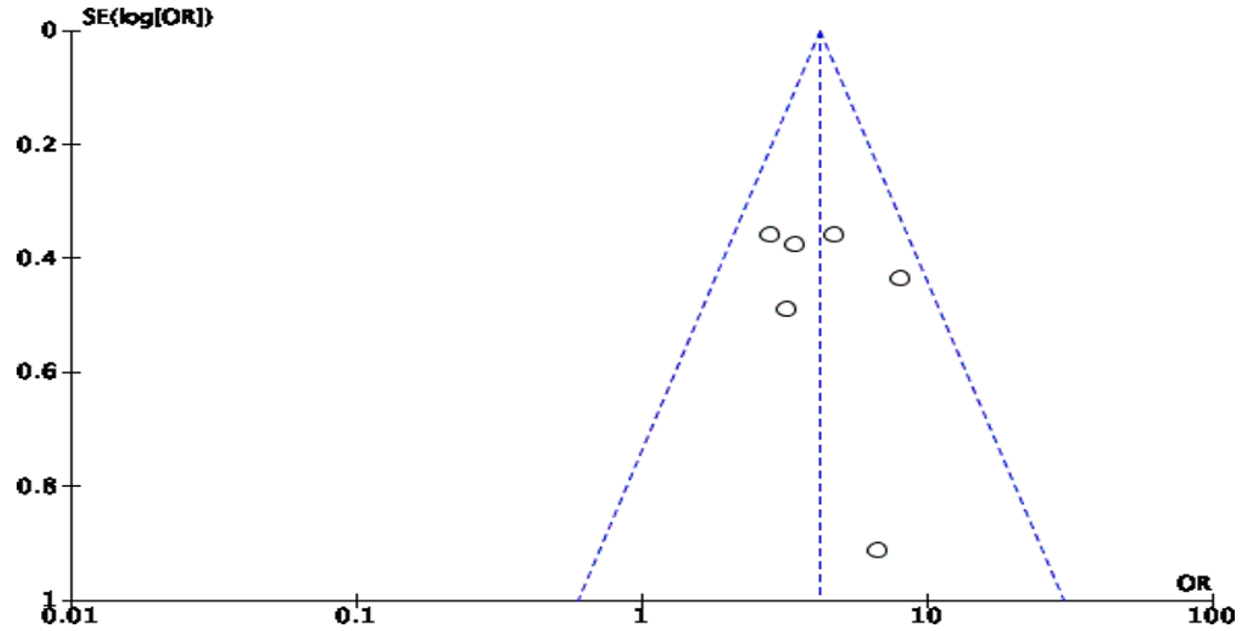

Figure 3. Funnel Plot Assessment of Included Studies

similar mean age of suicide in the 30s, 37.5% studies in the 40s and 12,5% in the 20s. Moreover, the location of the studies varied from Hong Kong (being the most studied), Japan, India, China, Taiwan and Singapore. This is beneficial because these included studies were able to represent high, middle, and low income countries in Asia. To add, the median age of suicide in all included studies ranges from 25.5 to 43 years old, consistent with WHO's data of suicide as the third major cause of death in productive age of 15-44 years old. All studies have shown suicidal ideation as a contributing factor to suicide, and none of the studies has mentioned otherwise.[8,16-22] The assessment of suicidal ideation may uncover patients to make their intent known and are amenable to intervention.[16]

This result reaffirms the groundbreaking concept of presuicidal syndrome as mental state that directly precedes suicide, which was first proposed in 1953. This syndrome involves a narrowing of functioning areas, including dynamic, situational, perceived values and interpersonal aspects, along with the presence of suicidal ideation and the accumulation of aggresion and emotional tension. These three major precursors coalesce together, contributing to an escalated suicidal risk.[23-25] Suicide models further explain the significance of suicidal ideation in relation to suicide conduct. Suicidal ideation accrelerates the process of adaptation, allowing individuals to surpass self-harm protective thresholds and leading to impulsiveness. This, in turn, induces the implementation and planning of suicidal intentions.[26,27]

Furthermore, psychological autopsies have shown that two-thirds of individuals commit suicide sought professional help within 6 weeks before their suicidal acts. However, over time, these patients tend to become less communicative about their problems, while simultaneously engaging in concealed efforts and preparation for suicide.[13] This phenomenon demonstrates that suicide is a continous process that is preceeded by suicidal ideation. Thus, it underscores the importance of assessing and addressing suicidal ideation as a preventive and risk assessment measure, particularly in emergency setting.[16] In light of this finding, healthcare providers must recognize the importance of addressing suicidal ideation in all suspected patients, as the these individuals have most likely come into contact with a healthcare worker for at least once before committing suicide.

Despite recognizing the importance of suicide risk assessments, some physicians have expressed concerns about addressing such questions. Once primary reason for this hesitation is a prevalent misconception that inquiring about suicidal ideation can trigger or worsen thoughts and behaviors related to self-harm. However, research conducted by Crawford, et al.[28] found that screening for depression and suicidal ideation in primary care did not lead to individuals feelings that life was worthless. On the contrary, they concluded that screening and evaluating suicide risk in patients with depression are indeed valuable.[29]

On another perspective, studies on the same topic have also been found outside of Asia as well. Evidently, similar results were also found in studies in western countries. These studies collectively emphasize that suicidal ideation is a significant risk factor in high-risk populations, both in Asian and Western populations. However, it's worth noting that a study by Yim PH, et al.,[8] which has the highest weight (24.7%) in this meta-analysis, discovered that ethnicity has a significant effect on other suicide risk factors. This is evident from the higher occurrence of schizophrenia among individuals who die by suicide, the lower prevalence of substance abuse and comorbid conditions, the relatively smaller proportion of patients living alone, and the lesser degree of suicidal intent expressed by Chinese patients in comparison to Americans. The study also highlights the observation of less suicidal intent expression in Asian population, which has been described in previous research as well.[29] These findings present a higher challenge in identifying suicidal risk in the Asian population. Therefore, it is prudent to carefully consider individual factors, such as ethnicity, to enhance the accuracy of evaluating suicidal risk in patients.

Given this concern, it is crucial to extend the assessment of suicidal ideation to include the families and relatives of high-risk individuals. Other studies have also confirmed that patients' families serve as an important source of information. In fact, within the 12 months preceding suicide, the intention to commit suicide was disclosed to a spouse in 69% of cases and to a friend in 50% of cases.[13] According to the WHO, the immediate social circle of an individual, including partners, family members, peers, friends, and significant others, holds significant influence and can provide valuable support during times of crisis. They serve as a crucial source of social, emotional, and financial assistance, and

can help mitigate the effects of external stressors. However, little is known about family's understanding and instruction on how to deal with suicidal ideation. Therefore this study may provide to promote the formation of family-based risk assessment and intervention, as families can play a vital role in providing support and identifying potential warning signs.[2] The strength of this review includes: usage of a structured guideline, low risk of bias in the included studies, representation from various countries, no study heterogeneity, high study specificity, and a symmetrical funnel plot. The inclusion of 6 countries in the systematic review and 5 countries in the meta-analysis from diverse socioeconomic background allows for generalization of the results to broad populations residing in Asia. A minimum scale of 6 out of 9 is required in all the studies included, which ensures a consistent level of quality. As mentioned earlier, the findings of this study reveal a p-value of less than 0.0001 and 0% heterogeneity, indicating a specific and reliable outcome. This strong result is achieved by including a sufficient number of studies and a diverse range of data, thereby enhancing its statistical validity. Moreover, the observed symmetry observed in funnel plot data further supports the robustness of the findings.

However, limitation of this systematic review and meta-analysis include the possibility of excluding studies that are based on unpublished records. Additionally, recall bias may exist due to case-control study design, which could only retrospectively evaluates past suicidal ideation. The choice of case-control studies is based on their availability and accessibility, as well as the consideration of ethical issues. While cohort studies and clinical trials may provide valuable insights into the relationship between suicidal ideation and suicidal behavior, they might not have been included in this particular write-up due to constraints related to the availability and accessibility of such studies. Furthermore, the documented psychopathology in this study may not be as comprehensive or precise as in prospective studies, which may affect the accuracy of the results.

Conclusion

High-risk Asian individual with suicidal ideation has 4.2 times increased risk of suicide completion compared to those without suicidal ideation. Suicidal ideation accelerates an individual's habituation to self-harm protective barriers and provides impulsiveness, consequently inducing planning and implementation of intention. Therefore, assessing suicidal ideation is crucial for uncovering patient intents and enabling proper intervention. Additional research is needed to assess the severity of suicidal ideation, especially its connection to higher suicide attempt risk among those with more severe levels, particularly when accompanied by intention or a plan. Distinguishing active from passive suicidal ideation also holds clinical importance. Larger prospective studies are necessary to confirm these results. Suicidal ideation's role compared to other factors is significant, potentially contributing significantly. Its relative importance and potential for intervention versus other factors require further analysis and research.

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